# 5,7,4'-Trimethoxyflavone

**Cat. No.:** HY-N6818

**CAS No.:** 5631-70-9

**Molecular Formula:** $C_{18}H_{16}O_5$

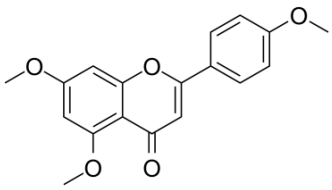
**Molecular Weight:** 312.32

**Target:** Apoptosis; Caspase; PARP

**Pathway:** Apoptosis; Cell Cycle/DNA Damage; Epigenetics

**Storage:**

| | | |
|---|---|---|
| Powder | -20°C | 3 years |
| | 4°C | 2 years |
| In solvent | -80°C | 6 months |
| | -20°C | 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (320.18 mM; Need ultrasonic)

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 3.2018 mL | 16.0092 mL | 32.0184 mL |
| 5 mM | 0.6404 mL | 3.2018 mL | 6.4037 mL |
| 10 mM | 0.3202 mL | 1.6009 mL | 3.2018 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (8.00 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.00 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

5,7,4'-Trimethoxyflavone is isolated from Kaempferia parviflora (KP) that is a famous medicinal plant from Thailand. 5,7,4'-Trimethoxyflavone induces apoptosis, as evidenced by increments of sub-G1 phase, DNA fragmentation, annexin-V/PI staining, the Bax/Bcl-xL ratio, proteolytic activation of caspase-3, and degradation of poly (ADP-ribose) polymerase (PARP) protein.5,7,4'-Trimethoxyflavone is significantly effective at inhibiting proliferation of SNU-16 human gastric cancer cells in a concentration dependent manner[1].

| $IC_{50}$ & Target | Caspase-3 | PARP |
|---|---|---|

## REFERENCES

[1]. Kim H, et al. Induction of ER Stress-Mediated Apoptosis by the Major Component 5,7,4'-TrimethoxyflavoneIsolated from Kaempferia parviflora Tea Infusion. Nutr Cancer. 2018 Aug-Sep;70(6):984-996.



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